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ABSTRACT

This purpose of this study was to determine which periodical index--InfoTrac or EBSCO Magazine Article Summaries--is the most appropriate for use by middle school students preparing required research projects. The study population consisted of randomly selected sixth, seventh, and eighth grade students (N=50) in a Cobb County (Georgia) middle school. After students were interviewed, the researcher searched both databases, and the number of article citations found on each database was recorded. Findings showed that InfoTrac had higher citation rates for subject index searching, while EBSCO Magazine Article Summaries gathered more citations on keyword searching for topics searched. Of the students surveyed, 26 (52 percent) preferred using EBSCO's index, while 24 (48 percent) preferred using InfoTrac's index. The middle school students who were surveyed liked searching both CD-ROM periodical indexes for articles to use in their research projects. Reasons for student preference ranged from differences in monitor screen size and color to user screen layout and keyboard characteristics. In addition, EBSCO's strength was found to be its abundance of full text articles retrieved on a keyword search, while InfoTrac's strength lies in its comprehensive subject heading index. An index sign-up sheet, the student interview instrument, and product descriptions are appended. (Contains 11 references.) (GLR)

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A COMPARISON OF TWO CD-ROM PERIODICAL INDEXES FOR USE IN THE MIDDLE SCHOOL

by

Beverly M. Thrash

A SCHOLARLY STUDY

Presented in Partial Fulfillment of Requirements for
the Degree of Specialist in Education in Library
Media Technology in the Department
of Curriculum and Instruction
in the College of Education
Georgia State University

Atlanta, Georgia

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ABSTRACT

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Purpose

The purpose of this study was to determine which periodical index, InfoTrac or EBSCO Magazine Article Summaries, is most appropriate for use by middle school students preparing required research projects.

Methods and Procedures

This study was descriptive, using a student sign up sheet and interview. The population consisted of sixth, seventh, and eighth grade students in one Cobb County middle school. Participants were chosen randomly from a list of students whose names appeared on both lists. After the students were interviewed, the researcher searched both databases and the number of article citations ("hits") found on each database was recorded.

Results

InfoTrac showed a higher "hit" rate for subject index searching, while EBSCO Magazine Article Summaries gathered more "hits" on keyword searching for topics searched. 26

students surveyed (52%) preferred using EBSCO's index, while 24 students (48%) preferred using InfoTrac's index.

Conclusions

The middle school students surveyed liked searching both CD-ROM periodical indexes for articles to use in their research projects. While some students preferred EBSCO's index and some preferred InfoTrac, all students surveyed found articles they could use in writing their assigned research projects. Reasons for student preference varied from differences in monitor screen size and color to user screen layout and keyboard characteristics. In addition to these findings, the researcher discovered EBSCO's strength to be an abundance of full text articles retrieved on a keyword search, while InfoTrac's strength lies in its comprehensive subject heading index.

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CHAPTER ONE

INTRODUCTION

Overview

School Library Media Specialists have long struggled to meet the challenge of providing information sources which meet the needs of their students and faculty on a small and often inadequate budget. Added to this challenge is the increasingly difficult task of selecting materials for their collection from a variety of format choices arising from recent advances in instructional technology.

Information Power advocates providing, through the school media center, intellectual and physical access to material in all formats. (Harris and Franz, 1990). Many professionals believe that providing students learning resources from a variety of technological delivery systems is a function of the new and expanded role of the media specialist. "The library media specialist's role as information specialist, teacher, and instructional

consultant became more important in both the new and traditional curriculum with each instructional and/or technological development." (Harris and Franz, 1990, p. 48). "Too often the library is associated solely with books. The book will continue to be a critical technology to which students and teachers need access. But the book is only one of the technologies they need in order to manage effectively the information necessary for teaching and learning. "One of the reasons for the use of the label "school library media specialist" is to help people bridge the conceptional gap between a librarian whose function is to deal with information transferred via the book and a librarian whose function is to deal with information transferred via the most appropriate medium." (Barron and Bergen, Jr., 1992, p. 524).

"One of the many challenges to school library media specialists in the 90's is to provide adequate technology and to manage it effectively. The need to stay current with technical and professional literature, evaluate new products, select those that best fit the curriculum and learners, manage funding, set up hardware, learn the software, teach users, and keep systems up and running can seem daunting...." (Bankhead, 1991, p. 44). But with

careful planning and management, "technology becomes another tool to help meet challenges such as more and better planning with teachers, accessing increasing amounts of information, teaching thinking skills, getting the most out of budgets, collaborating with other librarians and professionals, and preparing students for the future." (Bankhead, 1991, p. 44).

Media Specialists in the middle schools have recently found themselves challenged with the task of providing students and teachers with materials for research units. Introduced into the curriculum through the Quality Core Curriculum, media skills objectives which are tied to classroom assignments are mandated. One of the four goals of the middle level media skills continuum is that students develop the techniques and skills necessary for systematic research or study of a topic. Another goal requires that the student understand how to retrieve content from information sources in all formats. A specific objective from this goal is that the student retrieve current information on topics by using periodicals indexes. (QCC, 1988).

In response to the changes in the curriculum, and in keeping with professional responsibilities outlined in

Information Power; library media specialists should provide a carefully selected and organized collection of diverse learning resources in a variety of formats and delivery systems including print and on-line databases.

Statement of the Problem

The purpose of this research study was to evaluate two of the CD-ROM periodical indexes with limited full text articles to see which was more successful in supporting student research projects in the middle school. Specifically, this study attempted to answer the following questions:

(1) Which periodical index, InfoTrac or EBSCO Magazine Article Summaries, provides more articles for students to use as a resource in preparing curriculum related research projects?

(2) Which periodical index, InfoTrac or EBSCO Magazine Article Summaries, do the students prefer using, and why?

Significance of the Study

Media specialists at the middle school level are searching for materials in various formats which will directly support middle level resource units. Results of

this study could provide additional information which can be used in the selection of an on-line database most suitable to middle school needs.

Assumption

During data collection, the assumption was made that all students whose names appeared on the database sign-up sheets were searching for articles to use as resources for required research projects.

Delimitation

This study was delimited to a sampling of research topics assigned in the sixth, seventh, and eighth grades at one Cobb County middle school. The study was also delimited to two of the three major electronic periodical indexes available for use in the schools.

Definitions

EBSCO Magazine Article Summaries -- product name for the periodical index produced by EBSCO publishing company. The index is delivered on-line by compact disc.

InfoTrac -- product name for the periodical index produced by Information Access Company. The index is delivered on-line by compact disc.

CHAPTER TWO

REVIEW OF THE LITERATURE

There is an abundance of literature which supports the argument for the addition of database searching capabilities to our school library media services. Some research studies have investigated the use of periodical databases in high school and academic libraries while others have compared one particular periodical index with another. This chapter discusses the rationale for providing CD-ROM database searching to students in school library media centers, and describes recent research studies which compared periodical database use in academic and secondary school libraries.

Rationale for Database Searching Capabilities

Two documents guiding educators in planning and implementing effective school programs, Information Power and America 2000, advocate the addition of new technologies in our schools in order to prepare our students for a life

in our rapidly changing world. Goal five of America 2000 states: "by the year 2000, every adult American will be literate and will possess the knowledge and the skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship" (America 2000, p. 64). A specific objective of this goal is that workers will have the opportunity to acquire the knowledge and skills needed to adapt to emerging new technologies through private educational, vocational, and technical programs.

In the document Information Power, the American Association of School Librarians and the Association for Educational Communications and Technology have prepared guidelines for the development of school library media programs to meet the needs of America's students in the twenty-first century (Information Power). The central unifying concept of these guidelines is the promotion of effective access to information resources by the school library media specialists. The specialists "serve as a link between students, teachers, administrators, and parents and the available information resources." (Information Power, 1988, p. 25)

In Georgia, Quality Core Curriculum (QCC) was developed by the State Board of Education to "ensure a quality education in each of our state's public schools" (QCC, 1988, p. 2). This document is the "framework upon which all local school system curriculum should be developed" (QCC, 1988, p. 2). Information access skills have been incorporated across all curriculum areas and in each grade level throughout QCC. Reference and study skills objectives found in the middle school QCC document which might be obtained through student access to a periodical database in the media center are:

SIXTH GRADE:

Skill #4 - Selects the most appropriate source (e.g. database, microform, interview, general and specialized references, community resource file, periodical index) for given topic (in research process).

Skill #6 - Retrieves information on a single topic from multiple types of sources (e.g. periodicals, indices, almanacs, general and specialized materials, audio visuals, databases where available).

Skill #7 - Uses periodical index to locate sources of current information.

SEVENTH GRADE:

Skill #2 - Locates information using the appropriate card catalog, periodical index, microforms.

Skill #3 - Uses current print and nonprint media as information sources.

Skill #4 - Selects relevent information on a topic from various types of sources.

EIGHTH GRADE:

Skill #2 - Locates information using the appropriate card catalog, periodical index, microforms.

Skill #3 - Uses current print and nonprint media as information sources.

Skill #5 - Selects relevant information on a topic from various types of sources.

In the Cobb County School District, the sixth grade research unit directs students to the public library to experience on-line searching of the card catalog and periodical indexes. In the seventh and eighth grade research units, the student is actually asked to define "database" and "InfoTrac" (a periodical index on CD-ROM).

CD-ROM database searching is just one of the many "emerging new technologies" of which so much has been

written. Numerous studies have been done on the effectiveness of database searching in the schools. CD-ROM technology has been labeled the great equalizer by many practitioners, "bringing success to all students, regardless of their prescribed ability levels" (Mendrinos, 1991, p. 29).

Mendrinos reported that in a study of 381 secondary school libraries in Pennsylvania and Maine, 80 percent were using CD-ROM workstations. The study showed that special education, learning disabled, and average students were not only more motivated, but were also more productive when using CD-ROM technology for reference (Mendrinos, 1992). In the same study, researchers found that CD-ROM searching helped students overcome previous previous learning barriers thus opening up a world of information to a group of former library non-users.

Several studies reported an increase in enthusiasm for research when students were given the resources to search on-line databases. Wozny (1982) reported that in a study of ninth graders using on-line databases for research projects the experience generated an enthusiasm among students for the research process.

The Massachusetts Department of Education trained students in grades 5 through 12 in CD-ROM database searching techniques. Students and teachers "gained new enthusiasm for gathering information" (Plati, cited in Lathrop) during this project. The researchers (students and teachers) were amazed that what once took them weeks to gather now takes them only minutes with CD-ROM databases.

Index Comparison in Academic and Secondary Libraries

Some studies have examined the use of periodical indexes in academic and secondary school libraries. In the fall of 1987, Sweet Briar College did a study comparing the effectiveness of two academic periodical indexes in the library. The reference librarians were searching for a periodical reference system that would bring speed and thoroughness to student searches of topics in magazines and journals. (Jaffe, 1988). The indexes chosen for the comparison were InfoTrac MAGAZINE INDEX and WILSONDISC Reader's Guide to Periodical Literature and Humanities Index.

The two indexes were placed side by side and virtually no instruction was offered by the reference librarians. During the three month test of the systems, the staff

conducted informal surveys of faculty and students to determine which of the databases met the research needs of the college. No comparison was made of the cost factor. The results showed the faculty and students "split down the middle" (Jaffe, 1988, p. 759) with faculty preferring WILSONLINE and the students preferring InfoTrac. The reference staff at Sweet Briar made the following conclusions from their study:

(1) On-line and Boolean searching frustrated the inexperienced searcher, and most undergrad students fall into that category.

(2) A multidisciplinary database is far more effective for undergraduates than CD-ROM files dedicated to specific fields of literature.

(3) The downside of a single multidisciplinary database is that students may perceive that all periodical sources are contained on the single disc file, and they will not search other print or microform sources that could broaden their search.

A high school librarian at McNeil High School in Austin, Texas evaluated EBSCO Magazine Article Summaries, and UMI's Proquest Magazine Express for use in secondary school media programs (Walker, 1992). EBSCO's product

contained full text of 60 periodicals on two CD's (no graphics), while Proquest offered 85 magazines in complete scanned images on 230 discs which contained full text and graphics.

Although Walker did not recommend one periodical index over the other for high school programs, she did offer pros and cons of each system which media specialists should consider before choosing between these two systems. Although the EBSCO index required more instruction to use than the UMI index, it was less expensive in both subscription rate and supplies requirements. Media specialists with small budgets might find Proquest subscription costs prohibitive. Walker also mentioned that unlike EBSCO Magazine Article Summaries, Proquest Magazine Express full text imaging system cannot be networked.

Summary

While there is an abundance of research to support the addition of database searching in the schools in general, and some research guiding the selection of certain indexes in academic and secondary school libraries, no research was found which specifically compared periodicals indexes for effectiveness for research in the middle schools.

Research studies have shown that college and secondary students find searching CD-ROM databases convenient, easy, and interesting. In some cases, students who were traditionally non-users of library services (at risk and disadvantaged students) became active researchers when given the opportunity to use CD-ROM databases. Since the research skills needed to complete a research project should be similar in the middle and secondary schools, middle school students might enjoy similar successes in using CD-ROM periodical indexes.

CHAPTER THREE

METHODOLOGY AND PROCEDURES

Design of the Study

This descriptive study attempted to determine the periodical database preference of middle school students in preparing research projects. The two databases used in the study were electronic databases delivered on CD-ROM. For a description of the databases, see Appendix C.

Frequency of use was determined by a sign up sheet placed at both indexes. Preference was determined by questions in an interview with students whose names appeared on both index sign up sheets.

Population

The middle school used in this study was chosen because the media specialists were willing to place the indexes in their media center and provide instruction to teachers and

students involved in research projects. During this study, students in the sixth, seventh, and eighth grades searched the databases with their classes as a group, and on an individual basis during their lunch periods and before and after school.

Participation in the study by students and teachers was voluntary. Interview subjects were taken from the sign up sheets. Participation in the interview was also voluntary.

Instrumentation

A sign up sheet (see Appendix A) was placed at the keyboard of both periodical indexes. The user was asked to sign his/her name, pod number (cluster of classes and teachers), and the date each time he/she sat down to search a particular database. The purpose of the sign up sheet was twofold:

(1) frequency of use as determined by number of students signed up would be one way of measuring student preference of databases.

(2) by comparing the names on the two index sign up sheets, interview subjects could be chosen who could provide information on the reasons for student preference of one database over another.

The interview questionnaire (see Appendix B) was designed to answer research question two concerning student preference of database and why. Included in the interview instrument was the question "What topic were you searching?" This response was used to help answer research question one concerning which database provides more articles for students to use in their research projects.

After the student was interviewed, the researcher searched both databases using the student topic and recorded on the interview sheet how many articles were actually found on each database.

Data Collection

Selected classes were given introductory instruction in both databases. Some students searching the databases were given little or no instruction. Students and teachers were instructed to sign up each time they searched a database.

Signs were also placed at each index giving the same instruction.

Students were allowed to search in class and independently for a period of four weeks (20 class days). After this period, sign up sheets for both indexes were compared to compile a list of sixth, seventh, and eighth graders who had used both indexes. Interviews were conducted with students from this list who agreed to be interviewed.

Data Analysis

Following completion of the student interviews, frequency and percentages were tabulated on which database students preferred. For the interview item "Reason for your preference," responses were reported in narrative form.

CHAPTER FOUR

RESULTS

The purpose of this study was to determine which periodical index, InfoTrac or EBSCO Magazine Article Summaries, is more appropriate for use by middle school students in preparing required research projects.

After searching both databases for research projects, 50 students in the sixth, seventh, and eighth grades at one middle school completed a database questionnaire to indicate preference. The researcher also searched both databases to compare article availability on 20 topics assigned to the students.

Research Question One

Which periodical index, InfoTrac or EBSCO Magazine Article Summaries, provides more articles for students to use as a resource in preparing curriculum related research projects?

Table One compares "hits" on each database searched using both a subject search and a keyword search. A "hit" is an article found which contains desired search parameters. In general, the keyword searches on both databases gathered more "hits" than the subject searches. In some instances, the subject search found no "hits", while the keyword search on the same topic gathered several.

While "hit" rates varied from topic to topic and between subject and keyword searches, EBSCO Magazine Article Summaries showed a higher hit rate on keyword searches, while InfoTrac had the higher hit rate on subject index searches.

TABLE ONE

"HIT" COMPARISON ON TWO DATABASES

TOPIC SEARCHED	INFOTRAC		EBSCO	
	SUBJECT	KEYWORD	SUBJECT	KEYWORD
EXXON VALDEZ	24	143	5	126
AIDS ORIGIN	0	10	0	18
LOS ANGELES RIOTS	22	187	0	169
SAM KINISON	1	17	1	7
DANA CARVEY	1	15	4	17
PAN AM BOMBING	0	36	0	5
MICHAEL JORDAN	27	265	57	158
PERSIAN GULF WAR	133	1000	25	1898
CHERNOBYL	30	227	7	314
PENGUINS	4	70	6	90
SOMALIA	20	105	15	57
UFO SIGHTINGS	19	50	5	41
BERLIN WALL	19	118	3	179
MICHAEL JACKSON	69	448	2	259
CROATIA	19	123	2	153
KAZAKHSTAN	15	41	5	76
YUGOSLAVIA	42	437	23	597
SLOVENIA	7	39	1	83
BOSNIA	22	94	5	67
TOTALS	474	3425	166	4314

Research Question Two

Which periodical index, InfoTrac or EBSCO Magazine Article Summaries, do the students prefer using and why? Table Two shows students' preference of database as indicated by the questionnaire.

Twenty-six students surveyed (52%) preferred EBSCO Magazine Article Summaries over InfoTrac, while 24 students (48%) preferred InfoTrac.

TABLE TWO

STUDENT PREFERENCE OF DATABASE

GRADE LEVEL	LIKED INFOTRAC BETTER		LIKED EBSCO BETTER	
	N = 50			
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
SIXTH	7	14	6	12
SEVENTH	7	14	8	16
EIGHTH	10	20	12	24
TOTALS	24	48	26	52

Tables Three and Four list the reasons students gave for preferring one database over the other. Students could respond with more than one reason for their preference.

Most student responses to reason for preference concerned ease of use (20 for EBSCO; 20 for InfoTrac), and quantity of information available on the students' research topic (9 for EBSCO; 15 for InfoTrac). Six students preferring EBSCO indicated their preference was due to screen color and size.

TABLE THREE

REASONS STUDENTS LIKED INFOTRAC BETTER

HAS MORE ARTICLES ON MY TOPIC	7
HAS A LOT OF INFORMATION ON MY TOPIC	7
IT WAS VERY CLEAR	4
IT WAS EASY TO OPERATE	5
COLORFUL SCREEN	1
IT WAS EASIER THAN EBSCO	9
FOUND INFORMATION QUICKER	1
IT GAVE GOOD INFORMATION	1
LIKED THE WAY IT LOOKED BETTER	1
IT WASN'T AS CONFUSING AS EBSCO	2
EASIER TO CHANGE SCREENS	2

TABLE FOUR

REASONS STUDENTS LIKED EBSCO BETTER

BETTER CROSS REFERENCING	1
COLOR KEEPS ATTENTION	1
EASIER TO USE THAN INFOTRAC	14
MORE INFORMATION ON MY TOPIC	9
HIGHLIGHTS WHAT SCHOOL HAS AVAILABLE	1
IT WAS QUICKER	5
IT WAS MORE COLORFUL	4
INFOTRAC WAS CONFUSING	1
KEYBOARD WAS EASY TO UNDERSTAND	5
SCREEN WAS LARGER	2

CHAPTER FIVE

DISCUSSION AND CONCLUSIONS

Findings

In determining which magazine index, InfoTrac or EBSCO, was more appropriate for use in the middle schools for research purposes, the researcher found the following:

1. EBSCO Magazine Article Summaries contained considerably more articles (over 800) on searched topics for keyword searches than InfoTrac.

2. InfoTrac showed a higher "hit" rate (over 300) on subject searches than EBSCO.

3. Twenty-six students surveyed (52%) preferred using EBSCO Magazine Article Summaries, while 24 students (48%) preferred InfoTrac.

4. Reasons for student preference of one database over the other varied from general statements "it was easier and quicker" to specific reasons like "screen was larger."

Discussion

The review of the literature indicated that student use of CD-ROM technology in general and skills acquired searching databases specifically, are practices which must be added to school media programs in order to prepare our students for life in the twenty-first century (Information Power, 1988). Mendrinos (1991, p. 29) stated that CD-ROM technology is the great equalizer "bringing success to all students, regardless of their prescribed ability levels." This was true of students searching the two databases in this study. Students in the sixth, seventh, and eighth grades acquired from 10-200 articles on each topic for their research papers.

The literature also stated that when students were given access to on-line databases, the process of searching generated great enthusiasm for the research process in general. (Wozny, 1982). This study reflected that finding when the majority of student responses on reason for preference of database were reponses like: "it was so easy!", "it was rad", and "had lots of stuff on my topic!"

The literature revealed that in comparison studies in both high school and college libraries, students and faculties were "split down the middle" (Jaffe, 1988) when asked their preference. This study reflected a similar

"split" with 48% of the students preferring InfoTrac and 52% preferring EBSCO. A future study might compare all available CD-ROM periodical indexes rather than just two as in this and in previous studies.

In examining results of search "hits" on keyword searching, a possible factor in number of hits per database could be subscription period. The two databases used in this study had different database subscription dates. The EBSCO database included articles indexed from the period of January 1984 through July 1992 (8 years, 7 months). The InfoTrac database included articles indexed from January 1985 through January 1993 (8 years, 1 month), a difference of six months. This could be responsible for some of EBSCO'S higher "hit" rates. A study could be conducted which compared databases with exact match subscription periods for a more accurate comparison of "hits".

Another factor which might have been responsible for EBSCO's higher "hit" rate was number of full text magazines available on the indexes used in this study. EBSCO's index contained full text of 90 magazines while InfoTrac's index contained only 40.

Data on "hit" rates reported in this study are the result of the researcher searching both databases using the students' research topics. Results on "hit" rates might vary from searcher to searcher and between student searchers and experienced searchers.

Another factor which might have influenced student preference other than "hit" rate was equipment differences. The InfoTrac database equipment used for this research study had a small, monochome monitor, while the EBSCO equipment included a color monitor with a slightly larger screen. Nine student responses for preference of database concerned either screen color or size. A study could be conducted in which the monitors of all databases being compared were the same.

While gathering data on "hit" rates for both subject and keyword searching, the researcher noticed a peculiarity which exists in searching the same topic in both databases. In EBSCO, the keyword search screen is the screen which appears first for the student to type in desired search terms. The student must select a Function key to do a subject heading search. The EBSCO subject heading index carries few "see" and "see also" references.

The InfoTrac subject heading search screen is the screen which the searcher sees first and the "see" and "see also" references are more abundant than those of EBSCO. The student must ask for a keyword search (InfoTrac calls it enhanced search) by pressing the "E" key and then typing in search terms.

If a student is searching for a topic and does not know how to spell it, then a keyword search would turn up "0" hits. On a subject heading search, a student can type in a topic, even if it is misspelled, and the computer will highlight the closest hit to that spelling and then the student can scroll the subject headings for the correct spelling. If a student were searching for articles on Chernobyl, but misspelled it in a keyword search "Chemoble", then the student would get no "hits". If that same student typed "Chemoble" in a subject search then at least he or she would get a screen where Chernobyl was nearby and accessible.

Both types of searches have their advantages, depending on the experience and ability level of the student. Further studies could be conducted which involve more training of students on both subject and keyword searching so that they are not denied access to information because they are poor

spellers, or because they are not familiar with boolean search techniques.

Applications

The findings of this study can be used by media specialists in selecting a CD-ROM periodical index for their middle school media programs. While neither index was overwhelmingly preferred over the other by the middle school students in this study, there are certain characteristics of each database which may influence media specialists' choice of product.

While EBSCO's index achieved higher "hit" rates in keyword search mode, the subject index was poor with respect to "see" and "see also" references. This characteristic makes it difficult for a student to find articles on a topic if he or she does not type in an exact match to EBSCO's subject index.

For example, when the researcher typed in "Pan Am Bombing" (on EBSCO's subject index), there was no "see also" reference, resulting in "0" hits. But when the researcher scrolled down in the subject index, a subject heading appeared "Pan American Flight 103 - Accident, Dec. 1988." A less aggressive searcher would have missed those articles.

InfoTrac, on the other hand possesses a subject index rich with "see" and "see also" references. Students with poor spelling skills would fair better in this index than in EBSCO's. However, InfoTrac had fewer full text articles on topics searched than EBSCO.

Both indexes used in this study were excellent products, enthusiastically searched by students and faculty. Perhaps final choice should be based on individual program needs and pricing.

REFERENCES

American Association of School Librarians and the Association for Educational Communications and Technology: (1988). Information Power: Guidelines for School Library Media Programs, IL: American Library Association.

Bankhead, Betty. (1991). Through the Technology Maze. Putting CD-ROM to Work. School Library Journal, 44-49.

Barron, David and Timothy J. Bergen, Jr. (1992). Information Power: The Restructured School Library for the Nineties. Phi Delta Kappan, 521-525.

Georgia Department of Education. (1988). Quality Core Curriculum.

Harris, E. Wayne and Carol W. Franz. (1990). Bringing Information Power to the School Library Media Center. Tech Trends, 48-50.

Jaffe, John G. (1988). For Undergrads: Infotrac Magazine Index Plus or Wilsondisc with Reader's Guide and Humanities Index? American Libraries, 759-761.

Lathrop, Ann. (1989). Online and CD-ROM databases in school libraries: Readings. Englewood, Co.: Libraries Unlimited.

Mendrinos, Rozanne Baxter. (1992). CD-ROM and At-Risk Students. A Path to Excellence. School Library Journal, 29-31.

U.S. Department of Education. (1991). America 2000: An Education Strategy. Washington, D.C.: U.S. Government Printing Office.

Walker, Julie. (1992). Periodical Indexes with Full Text on CD-ROM. School Library Media Quarterly, 62-63.

Wozny, Lucy Ann. (1982). Online Bibliographic Searching and Student Use of Information: An Innovative Teaching Approach. School Library Media Quarterly, 35-42.

APPENDIX A

INDEX SIGN-UP SHEET

EBSCO/INFOTRAC

NAME	POD	DATE

APPENDIX B

STUDENT INTERVIEW

1. Why were you searching the periodicals indexes?

_____ research projects

_____ other: please list

2. Which periodicals index did you prefer using?

_____ InfoTrac

_____ EBSCO MAS

3. List reasons for your preference:

_____

_____

_____

_____

4. What topic were you searching?

_____

SEARCH RESULTS (after interview):

InfoTrac Citations:_____ EBSCO Citations:_____

APPENDIX C

PRODUCT DESCRIPTIONS

	EBSCO	INFOTRAC
Product Summary	Keyword and subject Heading access to abstracts of articles from 340 general magazines, 40 specially selected journals, The New York Times, and Magill Book Reviews. Most indexing includes periodicals back to 1984.	InfoTrac's General Index provides access to every article from over 140 magazines through subject and keyword searching. Index covers January, 1985 issues through January, 1993. Full text is provided from over 30 magazines chosen specifically for use in secondary school libraries.
FULL TEXT COVERAGE	90 magazines	40 magazines
ON-LINE HELP	Yes	Yes
ON-LINE TUTORIAL	Yes	No
ISSUE COVERAGE OF DATA BASES USED IN STUDY	January 1984- July 1992	January 1985- January 1993